

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Martin Hermann Klemens BRUNE et al. :  
Serial No. NEW : **Attn: APPLICATION BRANCH**  
Filed February 18, 2004 : Attorney Docket No. 2004\_0248

ASSAYS FOR NUCLEOSIDE DIPHOSPHATES  
AND TRIPHOSPHATES  
(Rule 1.53(b) Continuation of Serial No. 09/937,296,  
Filed November 14, 2001)

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**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of ☒ the references listed on attached form PTO-1449 and/or ☐ the additional information identified below in paragraph 3. A legible copy of each reference listed on the form PTO-1449 and each U.S. patent application listed below is enclosed, except a copy is not provided for each reference previously cited by or submitted to the Patent Office in prior parent application Serial No. 09/937,296.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, or

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and**

**the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.

4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
  - b. ☐ a foreign patent office search report (in the English language) submitted herewith,
  - c. ☐ the concise explanation contained in the specification of the present application at page ,
  - d. ☐ the concise explanation set forth in the attached English language abstract,
  - e. ☐ the concise explanation set forth below or on a separate sheet attached to the reference:
5. ☐ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Martin Hermann Klemens BRUNE et al.

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February 18, 2004

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

ATTY DOCKET NO.  
2004\_0248SERIAL NO.  
NEWAPPLICANT  
Martin Hermann Klemens BRUNE et al.FILING DATE  
February 18, 2004

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,741,635	4/1998	Abhijit et al.			
	AB	4,923 796	5/1990	Ulfert et al.			
	AC	4,806,415	2/1989	Piero			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AD	00 52467	9/2000	WO				
	AE	2 660 933	10/1991	FR				
	AF							

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AG	Witkowski et al., 1999, Vol. 38, pp. 11643-11650.
	AH	Schneider et al., J. Biol. Chem., 1998, Vol. 273, pp. 11491-11497.
	AI	Deville-Bonne et al., Biochemistry, 1996, Vol. 35, pp. 14643-14650.
	AJ	Izumiya et al., J. Biol. Chem., 1995, pp. 27859-27864.
	AK	Abstract of Biondi et al., FEBS Letter, 1996, Vol. 299, pp. 183-187.
	AL	A. Miyawaki et al., "Fluorescent Indicators for Ca <sup>2+</sup> Based on Green Fluorescent Proteins and Calmodulin", Letters 1 Nature, Vol. 388, pp. 882-887, August 28, 1997.
	AM	A. Honda et al. "Spatiotemporal Dynamics of Guanosine 3',5'-cyclic Monophosphate Revealed by a Genetically Encoded, Fluorescent Indicator", Proc. Natl. Acad. Sci., Vol. 98, No. 5, pp. 2437-2442, February 27, 2001.
	AN	S. Karamohamed et al., "Bioluminometric Method for Real-Time Detection of ATPase Activity", Biotechniques, Vol. pp. 420-425, 2001.

EXAMINER

DATE CONSIDERED

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

2004\_Q248

SERIAL NO.

NEW

LIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: February 18, 2004

APPLICANT

Martin Hermann Klemens BRUNE et al.

FILING DATE

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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	BB						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	BC	Gary V. Richieri et al., "Interactions of Long-Chain Fatty Acids and Albumin: Determination of Free Fatty Acid Levels Using the Fluorescent Probe ADIFAB", Biochemistry, Vol. 32, pp. 7574-7580, 1993.					
	BD	R. Takashi et al., "A Fluorimetric Method for Continuously Assaying ATPase: Application to Small Specimens of Glycerol-Extracted Muscle Fibers", Analytical Biochemistry, Vol. 92, pp. 375-382, 1979.					
	BE	B. L. Strehler, "Adenosine-5'-triphosphate and Creatine Phosphate Determination with Luciferase", Methods of Enzymatic Analysis. 2 <sup>nd</sup> ed. New York: Academic Press, pp. 2112-2126.					
	BF	W. Lamprecht et al., "Determination with Hexokinase and Glucose-6-phosphate Dehydrogenase", Methods of Enzymatic Analysis. 2 <sup>nd</sup> ed. New York: Academic Press, pp. 2101-2110.					
	BG	V. Schauer-Vukasinovic et al., "Rational Design of a Calcium Sensing System Based on Induced Conformational Changes of Calmodulin", J. Am. Chem. Soc., Vol. 119, pp. 11102-11103, 1997.					
	BH	D. Jaworek et al., "Adenosine-5'-diphosphate and Adenosine-5'-monophosphate", Methods of Enzymatic Analysis. 2 <sup>nd</sup> ed. New York: Academic Press, pp. 2127-2131.					
	BI	Simon-Peter Williams et al., "Estimation of the Intracellular Free ADP Concentration by <sup>19</sup> F NMR Studies of Fluorine Labeled Yeast Phosphoglycerate Kinase in Vivo", Biochemistry, Vol. 32, pp. 4895-4902, 1993.					
	BJ	Li Qing Zhou et al., "Periplasmic Binding Protein Based Biosensors 1. Preliminary Study of Maltose Binding Protein Sensing Element for Maltose Biosensor", Biosensors & Bioelectronics, Vol. 6, pp. 445-450, 1991.					
	BK	J. S. Marvin et al., "Engineering Biosensors by Introducing Fluorescent Allosteric Signal Transducers: Construction of a Novel Glucose Sensor", J. Am. Chem. Soc., Vol. 120, pp. 7-11, 1998.					
	BL	M. Brune et al., "Direct, Real-Time Measurement of Rapid Inorganic Phosphate Release Using a Novel Fluorescent Probe and Its Application to Actomyosin Subfragment 1", Biochemistry, Vol. 33, No. 27, pp. 8262-8271, 1994.					

EXAMINER

DATE CONSIDERED